

USB Flash–Memory Drive with Dazzling Marquee–Pattern Driver for Multi–LED Display

Abstract

A multi-light-emitting diode (LED) display for a USB flash drive produces a visually dazzling display. When accessed, a USB flash controller drives pulses onto an activity signal that increments a counter on a pattern-decoding generator. The pattern-decoding generator decodes the count and drives signals to data outputs. The data outputs connect to LED's, turning LED's on and off according to a display pattern. The pattern can be programmed by the USB flash controller into the pattern-decoding generator, or can be a hardwired pattern. Marquee patterns having a lit LED appearing to move down a line of LED's have more visual appeal than single LED indicators. Each data line can drive two LED's in different parts of a dual display, reducing costs. Multi–color LED's can be used to improve variety. The multiple LED's and the pattern-decoding generator can be mounted on a flexible PCB.